

TC-40193-IP-EN / Rob Van Dijk
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MFPS patch-patch shelves

1 General product information

MFPS is a family of pivoting front patching panels addressing the specific needs of fiber access networks (POP houses and cabinets).

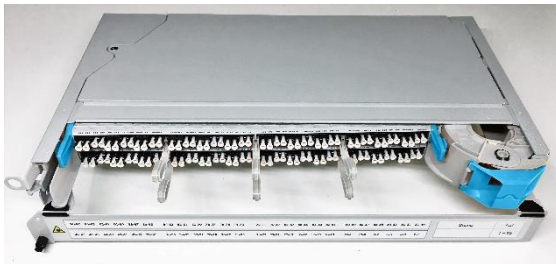
The MFPS series offers best-in-class density. Due to its modular, layered design, MFPS shelves can be configured to match the fiber count of most common fiber cables used in the access networks (96, 144, 192, 216 or 288 fibers) while preserving excellent fiber organization and management. The MFPS series is offered in patch-only, splice/patch and pre-cabled versions.

This document describes the MFPS patch-patch shelves for 1, 2 and 3 HU versions.

Left oriented versions: jumpers are leaving on the front left side.

Right oriented versions: jumpers are leaving on the front right side.

2 Product image and dimensions



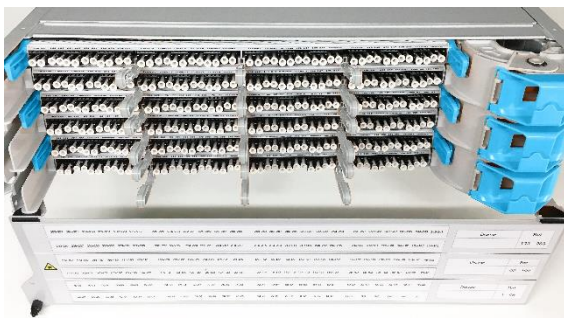
XD-LC version 1HU, right out.

Width: 19", Height 1 HU, Depth 280 mm, 290 mm incl. locker



XD-LC version 2HU, right out.

Width: 19", Height 2 HU, Depth 280 mm, 290 mm incl. locker



XD-LC version 3HU, right out.

Width: 19", Height 3 HU, Depth 280 mm, 290 mm incl. locker

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3 General safety precautions

3.1 Fiber optic cables may be damaged if bent or curved to a radius that is less than the recommended minimum bend radius. Always observe the recommended bend radius limit when installing fiber optic cables and patch cords.

3.2 Exposure to laser radiation can seriously damage the retina of the eye. Do not look into the ends of any optical fiber. Do not assume the laser power is turned off or that the fiber is disconnected at the other end.

4 Installation conditions

The shelf should be installed at temperature between 0°C and 45°C.

5 Tools required

Standard installation and stripping tooling for fiber optic cables.

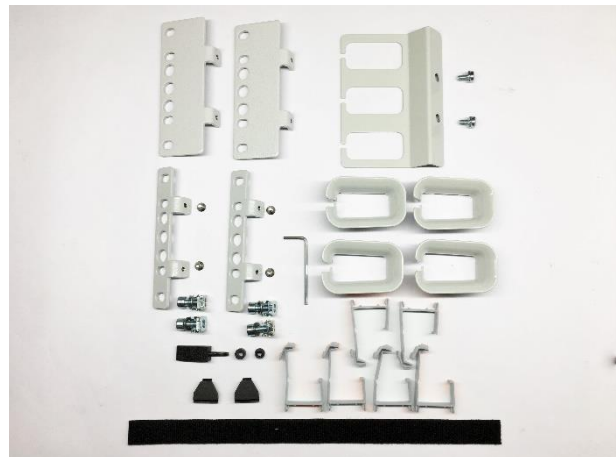
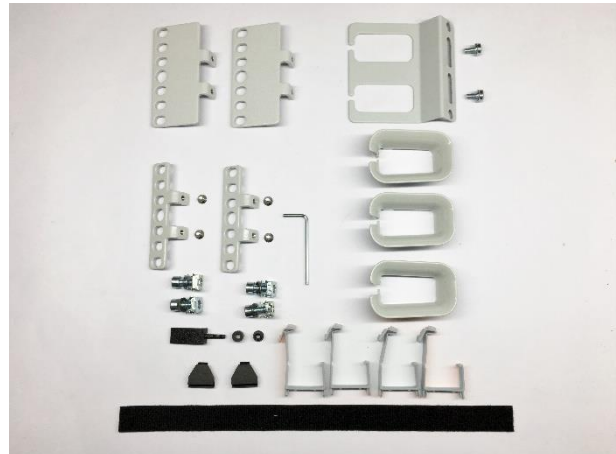
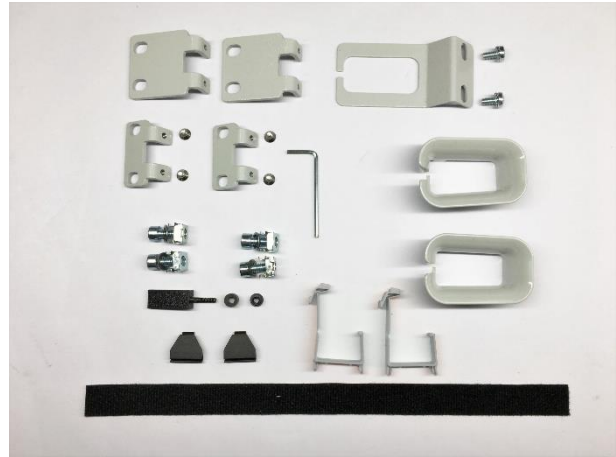
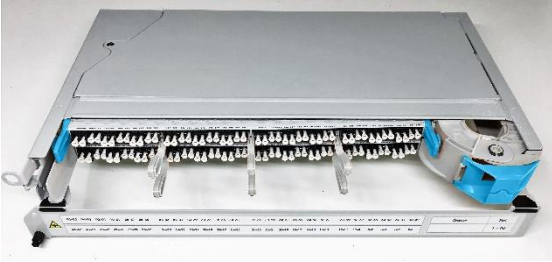
Mini Allen key is provided in the standard MFPS kit.

6 List of acronyms and abbreviations

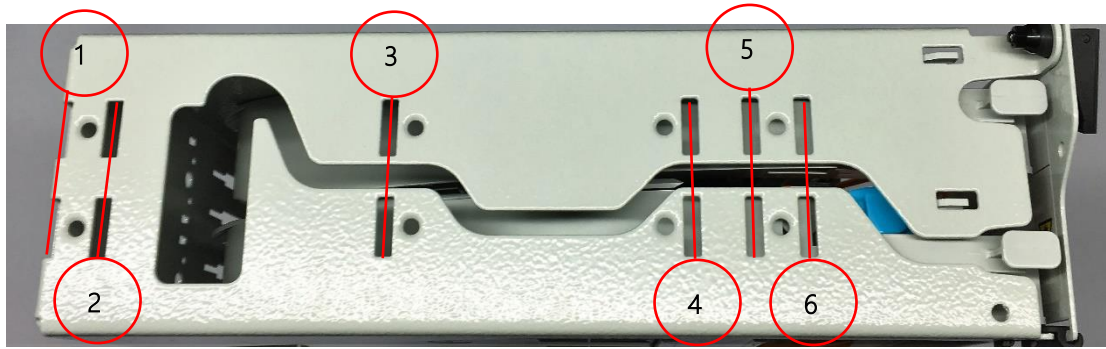
MFPS	-	Modular Fiber Patch Shelf
POP	-	Point Of Present
CTU-L	-	Cable Termination Unit - Large
FOPT	-	Fiber optic protection tube

7 Kit content

N°	Description
1	Shelf with front cover, latch and hinges
2	Pre-installed adapters
3	Pre-installed store basket
4	Small Allen key
5	Foam tape(s) & tie-wraps(s)
6	M6 screw and cagenuts
7	Jumper guiding trumpet(s)
8	Cable/pigtails clips

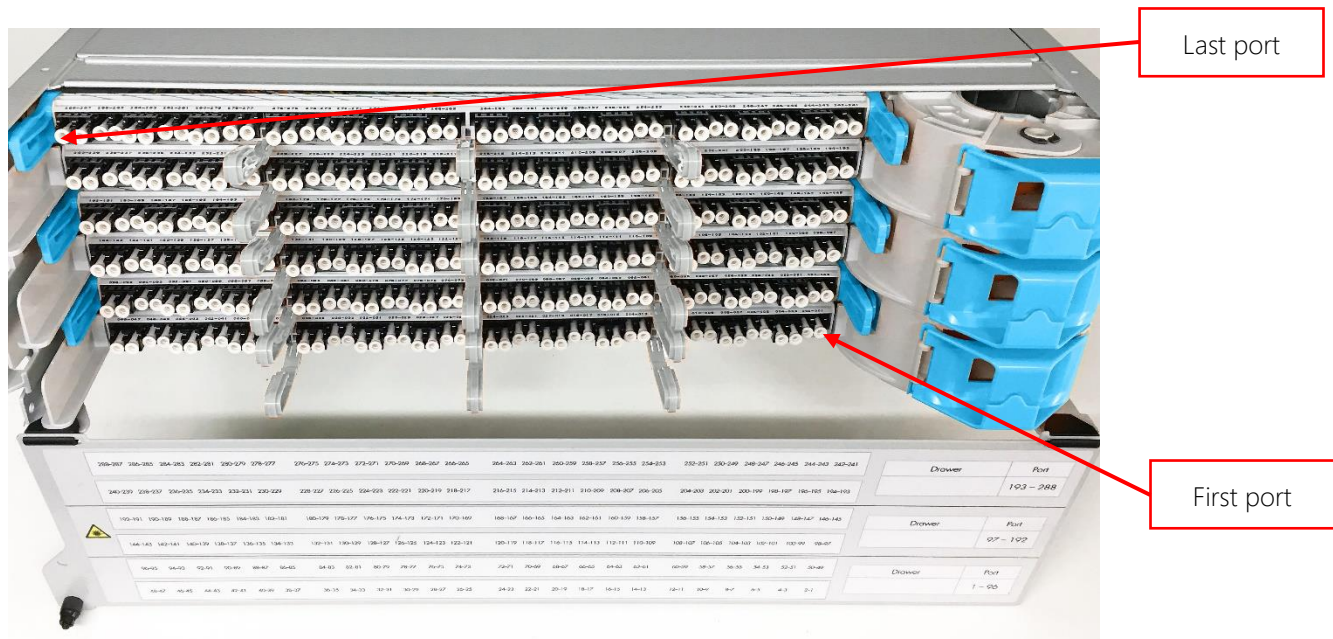


8 Mounting positions



Position 1	-	0 mm from backside	Position 4	-	100 mm from frontside
Position 2	-	20 mm from backside	Position 5	-	85 mm from frontside
Position 3	-	185 mm from frontside	Position 6	-	70 mm from frontside

9 Port numbering

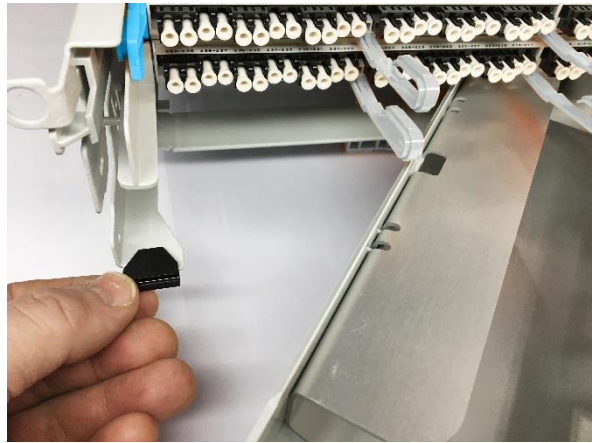


10 Installation

10.1 Front cover & hinges & latch



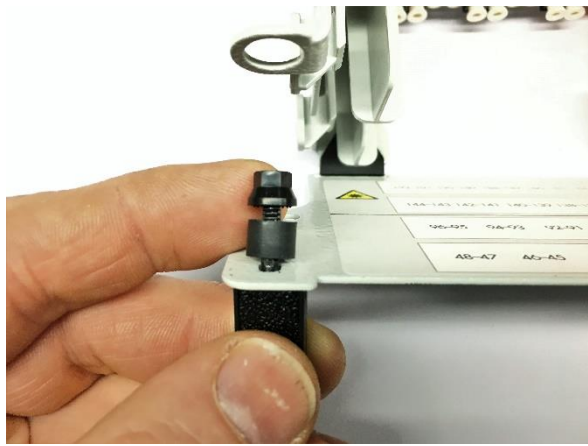
10.1.1 Install the hinge on right side of the shelf by first inserting the narrow end of the hinge into the hinge slot and then snap it into place.



10.1.2 Open the subunit and place the hinge on the left side.



10.1.3 Take the front cover, place it into the slot of the hinges by an angle of 45°, push until the cover is fixed. Repeat on the other side.



10.1.4 Install the latch, bushing and nut as shown in the picture.



10.1.5 For locking the cover, push the latch down.



10.1.6 Option; to secure the cover together with the panel (when taken of) install a rope between the cover and shelf.

(Not included in the standard kit)

10.2 Mounting brackets & trumpets



10.2.1 Select the preferred mounting position. Mount the 19" bracket with the 2 small provided screws. Open the shelf for gaining space to mount the left and or right side.



10.2.2 Example with an Etsi bracket



10.2.3 Install the side trumpet for the 1 and 2 HU version if the jumpers are entering the shelf from the side



10.2.4 For the 3 HU version install the large trumpet.

Shelves front mounted:

Shelves back mounted:



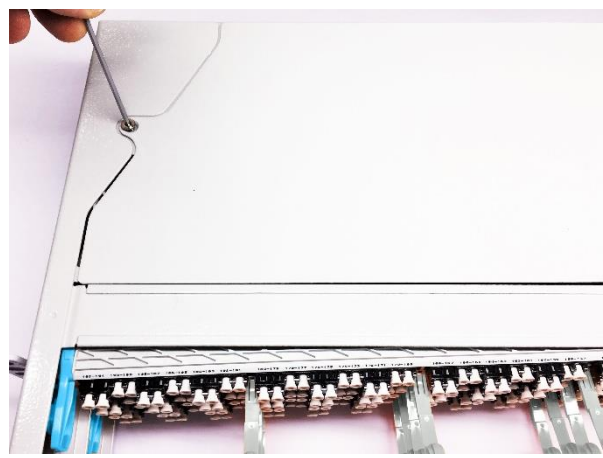
10.2.5 Install trumpets in brackets and install the bracket on mounting brackets.

10.2.6 Install trumpets on bracket and install bracket in one of the two possible positions as shown in the pictures.

10.3 Opening & access



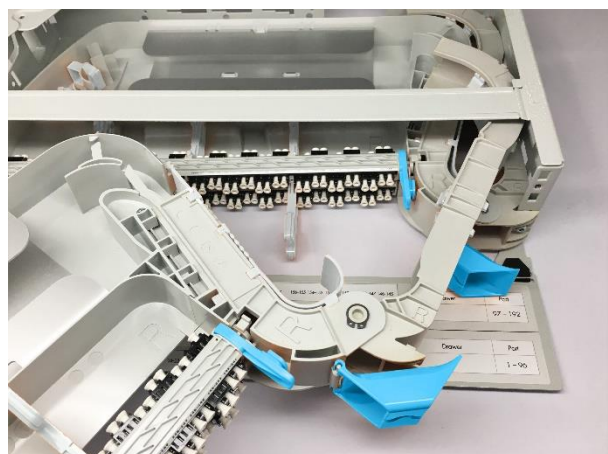
10.3.1 Open one subunit by pressing the locker insides and slide open the subunit.



10.3.2 Top cover can take off by removing the screw.



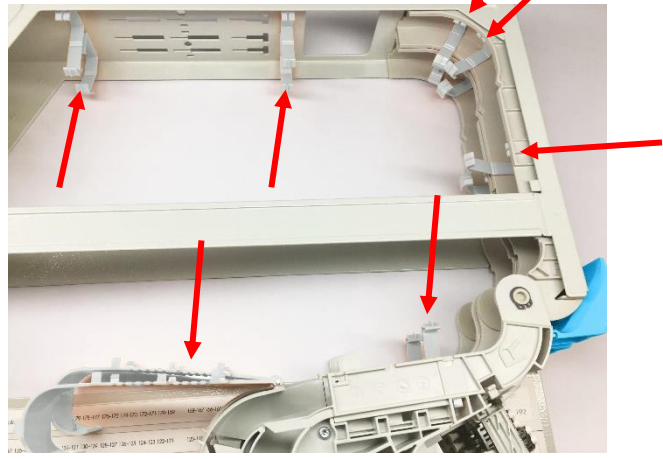
10.3.3 To remove a complete subunit; remove the screw on the front side.



10.3.4 Slide out the subunit.



10.3.5 If the jumpers are coming in from the side, place the extra cable/pigtail clips on the backside.

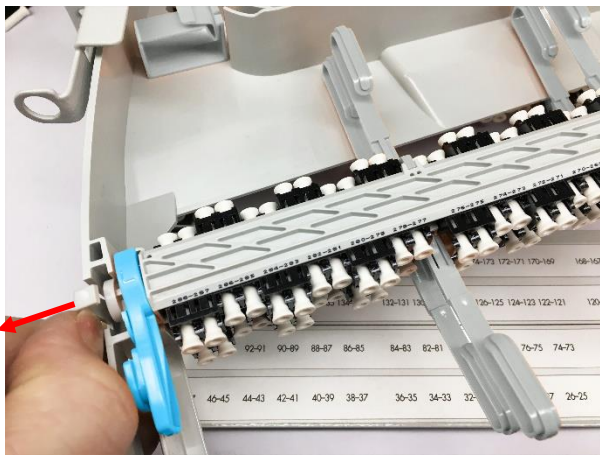


10.3.6 Open all six internal cable/pigtail clips and inner bend control in the shelf.

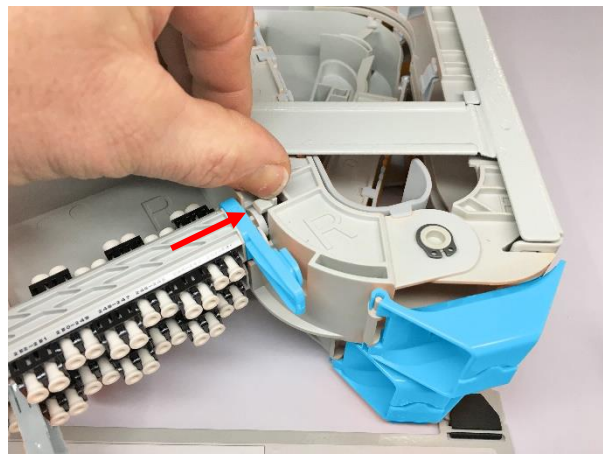
10.4 Patching side entry

Notes:

- Use connectors with short boots (< 25mm)
- Advised jumper jacket diameter 1.2 ~ 1.6 mm when MFPS XD version is used and fully populated.
- Advised fan-out length measured from shelf side entry is 1.85 mtr.
- Advised fan-out length measured from shelf back entry is 1.60 mtr.



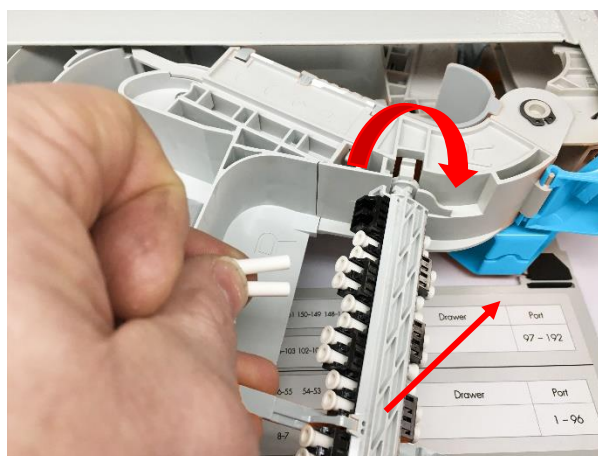
10.4.1 Remove the top row of adapters by pressing the left lip outwards and slide out.



10.4.2 Repeat at the other side.



10.4.3 Take out the top row of adaptors.



10.4.4 Slide the bottom row of adapters to the top to access and removing the dust caps of the adapters.



10.4.5 Feed the jumpers to the subunits. If the MFPS shelf is back mounted, you can use the side slit of the panel to feed the jumpers to the subunits.



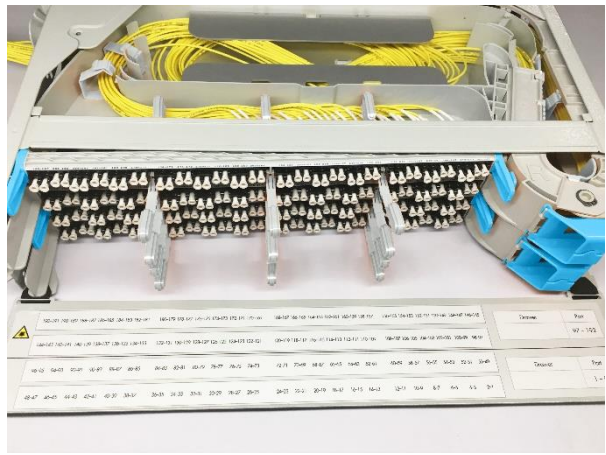
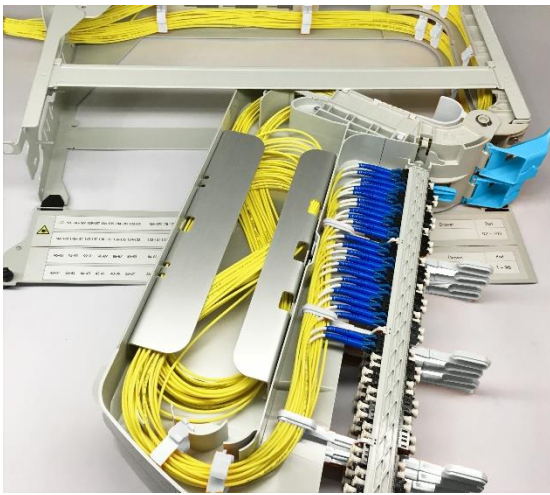
10.4.6 Close internal cable/pigtail clips and inner bend control in the shelf.



10.4.7 Patch the connectors into the adaptors.



10.4.8 Make all patches first before storing the over length.



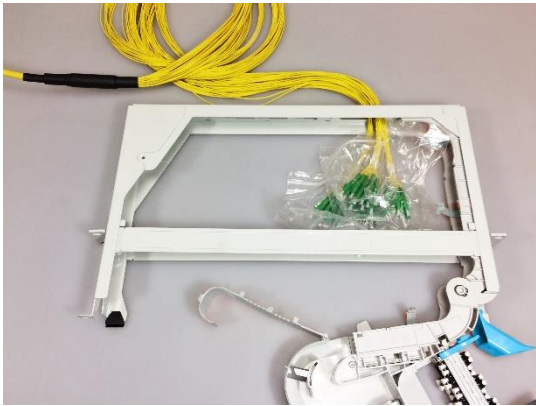
10.5 Example back entry.

10.4.9 Store the over length in the storing basket, make sure that the bends are respected, like showed on the picture.

10.4.10 Place back the upper adaptor row and repeat steps.

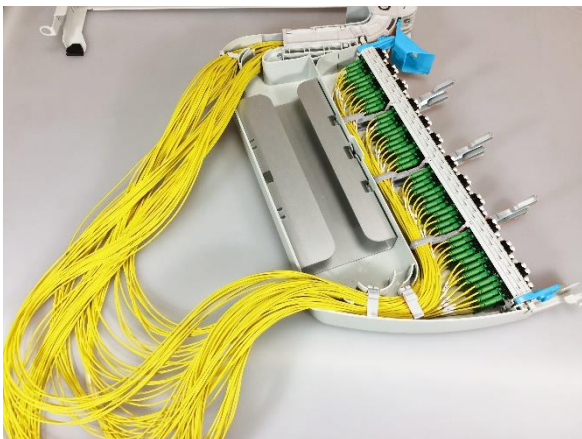
Used:

Fan-out cables 2x48 fibers, fan-out length 1.6 mtr. Short 20mm boots connectors. 1.6mm jackets. Fully loaded.



10.5.1 Feed in the connectors and cable.

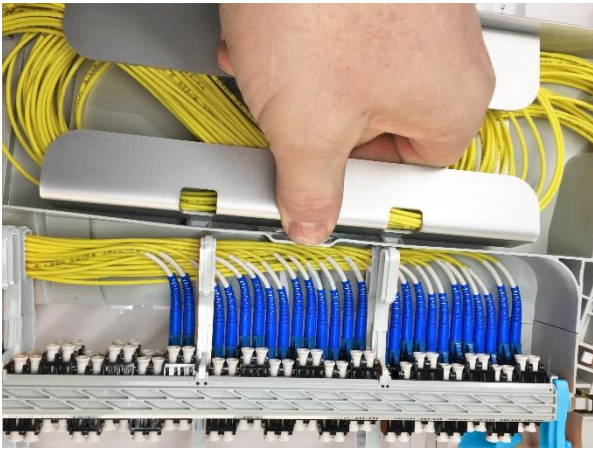
10.5.2 Secure the cables with tie-wraps on the backside of the shelf.



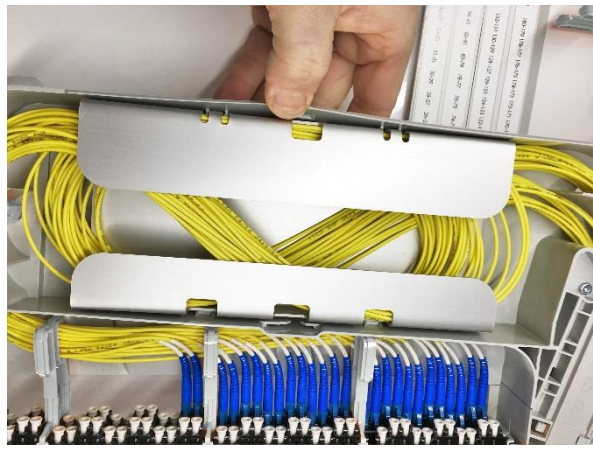
10.5.3 Patch the connectors into the adaptors.

10.5.4 Store the cable slack into the storage basket.

10.6 Repair of connector/pigtail



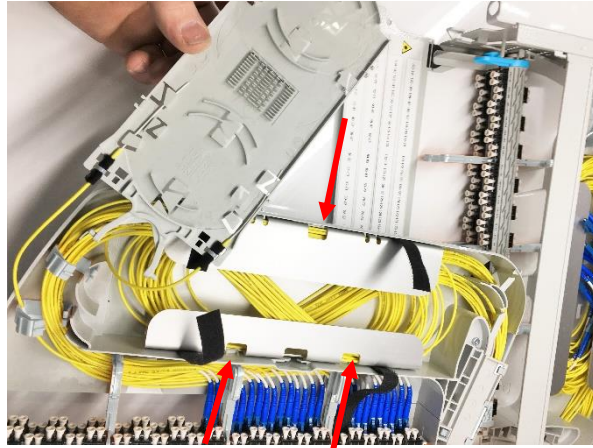
10.6.1 Remove the storage basket by pressing the wall outwards and the basket upwards.



10.6.2 Repeat at the outside and slide out the basket.



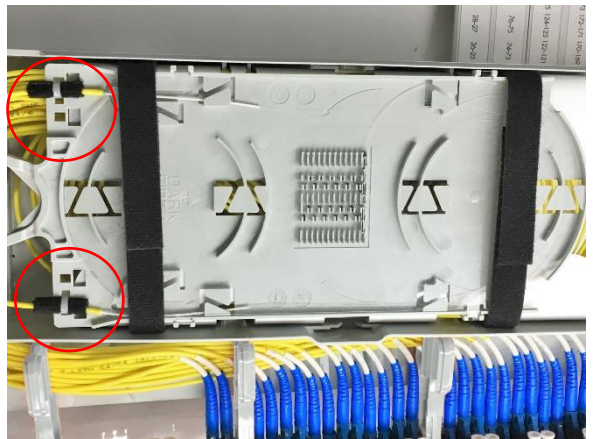
10.6.3 Place 2 pcs of small Velcro's (+/- 30cm) around the basket. (not included in the standard kit)



10.6.4 Slide in the basket until it snaps into place.



10.6.5 Strip and secure the pigtails with foam and tie-wraps on a FOSC-TRAY. (not included in the standard kit)

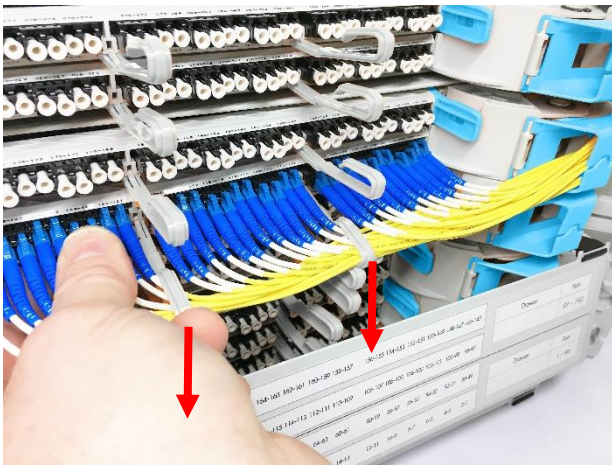


10.6.6 Place the knobs of the tie-wraps on the bottom side of the splice tray. Strip/clean and splice the fibers. Place the tray with the knobs of the tie-wraps just beside the storage basket. Secure the splice tray by closing the Velcro's.

11 Jumper patch

Note:

- Advised jumper jacket diameter 1.2~1.6 mm when MFPS XD version is used and fully populated.
- Advised connector < 30mm boots lengths.



11.1.1 Clean the connectors before making a patch. Route the jumpers via the trumpet and jumper guiding towards the adaptor. To gain more access push the adaptor holders down.

11.1.2 Example of a tool for ease removal and push back of the protection caps. (not included in the kit)

Tip: When the 1HU version is used, remove the front cover for more access.

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